

# Work Order ID 81507

\*81507\*

Page 1

March 15, 2012 7:11:55 AM

Item ID: D2622-120C

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Step Extrusion

Start Date: 3/15/12 Start Qty: 120.00

\*120\*

Cust Item ID:

Required Date: 4/06/12 Req'd Qty: 120.00

\*120\*

Customer:

Reference:

Approvals: Process Plan: *CL*

Date: *12/03/15* Tooling:

Date:

Run Start \*NR1\*

QC:

Date: SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D2622	Rev C1
-------	--------

100	PURCHASING	0.00
-----	------------	------

\*100\*

Purchasing

Memo

0.00

Purchasing

Issue P/O: *16455* a) Extrude as per Dwg D2622 Rev. Cb)  
Material: 6061-T6 (QQ-A-200/8)c) Minimum yield tensile strength = 35  
ksid) Minimum ultimate tensile strength = 38 ksi e) Minimum elongation =  
8%f) Order at 120" longg) Bon L Canada Inc.

*CL 12/03/15 120*

110	Receive & Inspect for Damage & Mat'l Certs	0.00
-----	--	------

\*110\*

Packaging

Memo

0.00

Packaging

Ensure material certification is attached

*CL 12/03/15 120*

120	QC6- Inspect dimensions to drawing	0.00
-----	------------------------------------	------

\*120\*

QC

Memo

0.00

Quality Control

Check Pull test per Dwg D2622 for compliance page attached Check hardness  
with Webster tester

*S rtd/11*

*(120)*

*sp019*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 81507

**\*81507\***

Page 2

March 15, 2012 7:11:55 AM

Item ID: D2622-120C

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Step Extrusion

Start Date: 3/15/12 Start Qty: 120.00

**\*120\***

Cust Item ID:

Required Date: 4/06/12 Req'd Qty: 120.00

**\*120\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

Identify as per dwg & Stock Location: WA

0.00

**\*130\***

Packaging

Memo

0.00

Packaging

*\* Pull on 1200s for inspection  
5/17/11*

(129)

*12.04.11*

140

QC21- Final Inspection - Work Order Release

0.00

**\*140\***

QC

Memo

0.00

Quality Control

*12/4/12*

*12-04-12*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

March 15, 2012 7:11:55 AM

Page 1

Work Order ID: 81507  
Parent Item: D2622-120C  
Parent Item Name: Step Extrusion

Start Date: 3/15/12  
Start Qty: 120.00

Required Date: 4/06/12  
Required Qty: 120.00

## Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2622-120CP Extrusion		Purchased	No			110	Each	0.0000	1	120		3/15/12 7:12:59	

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

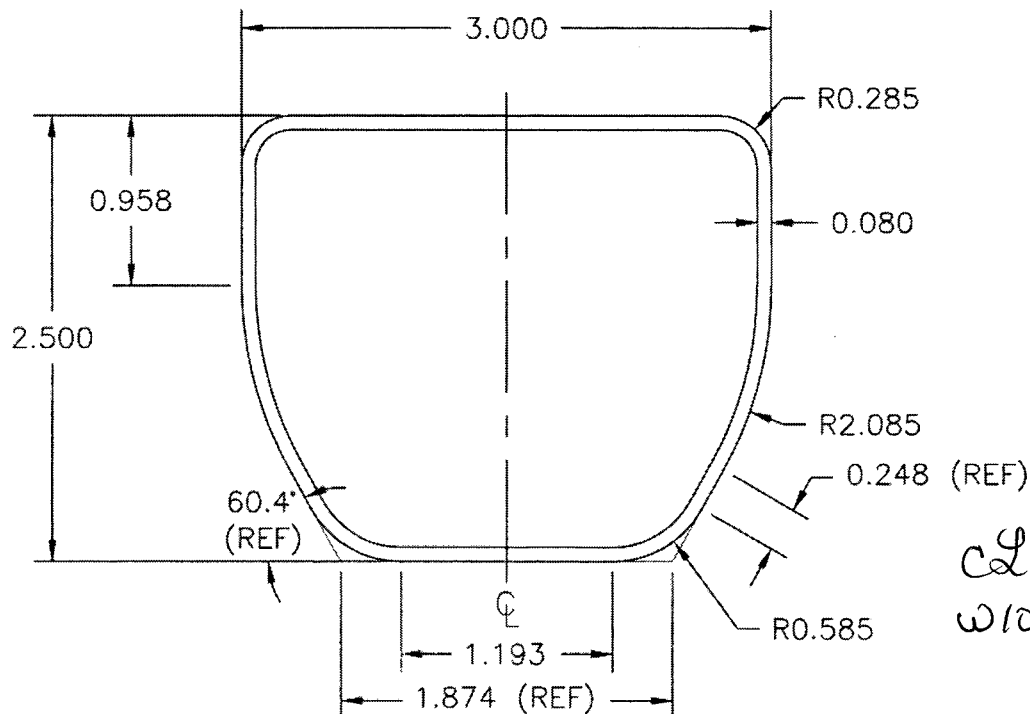
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries




DESIGN KE		DRAWN BY GP		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #		APPROVED #		DRAWING NO. D2622	
DATE 02.09.11		TITLE STEP EXTRUSION		REV. C SHEET 1 OF 1	
A	96.11.29	NEW ISSUE			
B	97.12.12	CHANGE MATERIAL, ADD TOL. QSI			
C	02.09.11	0.080 WAS 0.085; ADD PART & DIE No.			
C1	# GP 02.10.04	ADD 'REV. A' TO DIE NUMBER.			

RELEASED  
02.09.11



CL12103/15  
W/O: 81507

D2622-XXX STEP EXTRUSION

- 1) PART NUMBER IS D2622-XXX WHERE 'XXX' IS CUT LENGTH IN INCHES  
(EG. D2622-120 IS 120" LONG)
- 2) MATERIAL 6061-T6 (QQ-A-200/8)
- 3) MANUFACTURED USING BON-L DIE # 897123 REV. A 
- 4) A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE MINIMUM MECHANICAL PROPERTIES STATED BELOW:

MINIMUM TENSILE YIELD STRENGTH = 35 ksi  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi  
MINIMUM ELONGATION = 8%

- 5) PART IS SYMMETRIC ABOUT CENTERLINE  
6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
7) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



signature  
aluminum  
CANADA INC.

ACCT# 46024

INVOICING AND COMPANY LOCATION

SIGNATURE ALUMINUM CANADA  
1850 CLEMENTS ROAD  
PICKERING ON L1W 3R8

SHIPPING MANIFEST

MANIFEST DATE / DATE DU BODEREAU  
04-04-12

MANIFEST NUMBER / N° DE BODEREAU  
005223

SALES ORDER NUMBER / N° DE COM  
105032

REFER TO  
THESE NUMBERS ON  
ALL CORRESPONDANCE

REFEREZ-VOUS A CES  
NUMEROUS POUR TOUTE  
CORRESPONDANCE

TERMS / FREIGHT

PP

SHIP TO / EXPÉDIÉ À DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA  PHONE: 613-632-5200	SOLD TO / VENDUE À DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA  PHONE: 613-632-5200
--	---

LOCATION  PIC	TRAILER NUMBER / REMORQUE Nombre  5301	SALESMAN / VENDEUR  042	CREDIT REP / REP DU CRÉDIT  G.ATTENBOROU	SALES REP / REP. DES VENTES  G.ATTENBOROU
JOB / FICHIER			FIELD SALES REP / REP REGIONAL DES VENTES	CUST SERVICE REP / REP. SERVICE CLIENTELE
CARRIER / TRANSPORTEUR JODEE			G.ATTENBOROU	DLB

CUSTOMER ID / ID DU CLIENT  46024	ORDER DATE / DE LA COM  03/15/12	CUSTOMER PO NUMBER / CLIENT PO Nombre  16455
BILL OF LADING NUMBER / NO. DE CONNAISSEMENT  005223		

ITEM NO. / NUMÉRO	ORIGINAL ORDER QUANTITY / Quantité d'ordre ORIGINAL	UNIT / UNITÉ	PREVIOUS SHIPPED QUANTITY / PRÉCÉDENT Quantité livrée	MFG. PART NUMBER / MFG. PARTIE NUMÉRO	ALLOY & TEMPER / ALLIAGE & TEMPER	FINISH DESCRIPTION / DESCRIPTION DE FINITION	NBR OF PKGS / NBR DE PKGS	GROSS LBS / LIVRES BRUT	NET QUANTITY / QUANTITÉ NETTE	UNIT / UNITÉ	QUANTITY DUE / Quantité en raison
002	1,094	LB		DAA-897123-2	6061 T6		3	1,290	1,243	LB	
	496	KG		D2622-120CP	120.0000 IN			585	564	KG	
	120	PC			Cut(+): 0.1180 Cut(-): 0.0000 Min: 0 % Max: 0 %				129	PC	
						811316 / 136035	1	485	470		49 PC
						811316 / 136036	1	485	470		49 PC
						811316 / 136096	1	320	304		31 PC

129

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping manifests and signed and dated below  
by customers authorized representatives.  
No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping manifest were produced in  
accordance with the fair labor standards act of 1938 as amended. Order accepted subject to the terms and conditions stated on the reverse side.

CUSTOMER ACKNOWLEDGEMENT OF GOODS DELIVERED AND CONDITION

Page 2

4	2,432	2,374	LB
	1,103	1,077	KG
		167	PC
TOTALS			

DATE OF DELIVERY

DRIVER

signature  
aluminum  
CANADA INC.

# SIGNATURE ALUMINUM CANADA

1850 CLEMENTS RD  
PICKERING, ON L1W 3R8

## CERTIFICATE OF COMPLIANCE

Cert Date	Cert No.	Sales Order	Page
03/29/2012	5281197	105032	1
Cust PO	B/L No	Lot	Date
16455	005223	811316	04/04/12

Sold To		Ship To	
46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA		46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA	
Item No	Part No	Item Description	Cust Part
002	DAA-897123-2	10FT MILL 6061 T6	D2622-120CP
Gross Weight	1,290 LBS		3 PKGS
Net Qty	1,243 LBS		
Specification		Die Desc	
AMS-QQ-A-200/8 & ASTM B221-08 <i>Sizely</i>			

### Mechanical Tests:

Tensile	Yield	% Elongation	Conductivity	HREW
MPA / KSI	MPA / KSI			
288.3 / 41.8	262.1 / 38.0	10.2	0.0	90

### Chemical Analysis:

SI	FE	CU	MN	MG	CR	ZN	TI	V
0.60	0.30	0.21	0.06	0.84	0.05	0.06	0.02	0.01

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Mazzotta, Director of Quality Signature Aluminum Canada Inc